

1909. The first Bulletin of the "Mount Rose Weather Observatory" was published. The further prosecution of this work under Prof. J. E. Church, jr., was made possible by the cooperation of the Mount Rose Weather Observatory, the Nevada Agricultural Experiment Station, and the State University.

1909. Publication of Weather Bureau Bulletin "S," "Temperatures and Vapor Pressures of the United States," by F. H. Bigelow and others.

1909. The Weather Bureau began evaporation investigations at the Salton Sea, California.

1909. The Smithsonian Institution publishes "The Mechanics of the Earth's Atmosphere, II." a collection of further translations by Cleveland Abbe.

1909. July. Beginning with the issue for this month the MONTHLY WEATHER REVIEW changes its character and becomes a statistical survey of the weather. Professor Abbe is relieved of its editorship which passes to the Climatological Division under Professor Bigelow.

#### ADDENDA.

1836. J. P. Espy had been using wire in place of string for the kite cord for at least a year before this date.

1867. June. Cleveland Abbe, at Washington, D. C., studies the complex currents beneath thunder clouds by observing many kites flying simultaneously at various places and heights.

1871. December. The observations made on the balloon voyages of S. A. King are summarized by Prof. Cleveland Abbe and the law of change of wind with altitude deduced from them by him. He commends balloon work to the Chief Signal Officer.

1876. July. Prof. Cleveland Abbe determines, by means of kites, the altitude of the sea breeze on the coast of New Jersey.

1877. The Smithsonian Institution published "Short Memoirs on Meteorological Subjects," translations by Prof. C. Abbe.

1877. An outfit of pilot balloons, gas machine, and instructions how to use such balloons in determining the altitudes of the under sides of clouds, were furnished by Prof. Cleveland Abbe for the Arctic cruise of the schooner *Florence* (Capt. Geo. E. Tyson).

1879. July-August. S. A. King and Oray T. Sherman study the height and temperatures of the sea- and land-breezes at Coney Island, N. Y., by means of a manned captive balloon.

*The end.*

#### RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Librarian.

The following have been selected from among the titles of books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be lent for a limited time to officials and employees who make application for them. Anonymous publications are indicated by a —.

**Austria.** K. k. Zentralanstalt für Meteorologie und Geodynamik.

Allgemeiner Bericht und Chronik der im Jahre 1907 in Österreich beobachteten Erdbeben. No. 4. Offizielle Publikation. Wien. 1909. x, 209 p. 8°.

**Bombay and Alibag observatories.**

Magnetical, meteorological, and seismological observations 1902 to 1905. Bombay. 1908. v. p. 8°.

**British association for the advancement of science.**

Report... 1908. Dublin. London. 1909. v. p. 8°.

**Carnegie institution of Washington.**

The California earthquake of April 18, 1906. Report of the State earthquake investigation commission. Washington. 1908. 2 v. Atlas. 8°.

**Craig, J. I.**

Types of weather in Egypt. Alexandria. 1909. (Reprinted from "The Cairo scientific journal," no. 30, v. 3, March, 1909. 3 p.)

**Davis, William Morris.**

Atlas for practical exercises in physical geography. Boston. 1908. 45 pl. 8°.

#### Deutsche Südpolar Expedition 1901-1903.

... Hrsg. von Erich von Drygalski. 2. Band. Heft 3. Berlin. 1908. p. 225-298. 8°.

#### Dry farming congress.

Formerly the Trans-Missouri dry farming congress... Being a stenographic report of the proceedings of the third annual session of the congress held in Cheyenne, Wyo., February 23, 24, and 25, 1909... [Denver. 1909.] 360 p. 8°.

#### Dutch West Indies. Inspectie van den Landbouw.

Meteorologische waarnemingen... Suriname en Curaçao ... 1908. [Paramaribo. 1909.] 16 p. 8°.

#### Eredia, Filippo.

L'alluvione nel versante orientale della Sicilia del novembre 1908. Roma. 1909. 20 p. 4°.

Ploglie torrenziali in Sicilia. (Dagli Atti dell'Accademia Gioenia di scienze naturali in Catania. Ser. 5. v. 2. 4 p.)

#### Finska vetenskaps-societeten.

Bidrag till kännedom af Finlands natur och folk. Häftet 64-66. Helsingfors. 1907-1908. 8°.

Översigt af... forhandlingar. v. 48-50, 1905-1908. Helsingfors. 1906-1908. 8°.

#### Galitzin, B.

Hilfstabellen zur Auswerthung von Seismogrammen bei Anwendung aperiodischer Instrumente. St. Petersburg. 1908. 24 p. 8°.

Seismometrische Beobachtungen in Pulkowa. 2. Mitt. St. Petersburg. 1909. 115 p. 8°.

#### Germany. Deutsche Seewarte.

... Tabellarische Reiseberichte nach den meteorologischen Schiffstagebüchern. 6. Band. 1908. Berlin. 1909. x, 243 p. 4°.

#### Great Britain. National physical laboratory.

Report of the observatory department... 1908. Teddington. 1909. 53 p. 4°.

#### Greely, A[dolphus] W[ashington].

Handbook of Alaska. Its resources, products, and attractions. New York. 1909. xiii, 280 p. 8°.

#### Heilprin, Angelo.

The eruption of Pelée. A summary and discussion of the phenomena and their sequels. Philadelphia. 1908. 72 p. xlvi pl. 8°.

#### India. Meteorological department.

Memorandum on the meteorological conditions prevailing before the southwest monsoon of 1908. Simla. 1909. 3 p. 8°.

#### Indian association for the cultivation of science.

Report... 1907. Calcutta. 1909. 65 p. 8°.

#### Keeling, B. F. E.

Climate changes in Egypt. (Cairo scientific journal. Alexandria. 1908-9.)

#### König, Fr.

Der Vertrocknungsprozess der Erde und Deutschlands verkehrte Wasserwirtschaft. Leipzig. 1908. 108 p. 8°.

#### Leyst, Ernst.

Luftelektrische Beobachtungen im Ssamarck'schen Gebiet während der totalen Sonnenfinsternis am 14 Januar 1907. (Bulletin des Naturalistes de Moscou, no. 4, 1907. p. 493-528.)

#### Moscow. Kaiserl. Universität Meteorologisches Observatorium.

Beobachtungen... 1907. Moscow. 1908. 4°.

#### Negro, O.

Contributo allo studio della dispersione elettrico-atmosferica. (Extracto dagli Atti della Pontificia accademia Romana dei Nuovi Lincei. Anno 62, Sess. 3 del 14 feb. 1909. 9 p.)

#### Norway. Norske meteorologiske Institut.

Jahrbuch... 1908. Kristiania. 1909. xii, 122 p. 8°.

Nedbriagttagelser i Norge. Aargang 14. 1909. Kristiania. 1909. xvii, 130 p. 8°.

#### Phin, John.

The evolution of the atmosphere as a proof of design and purpose in the creation and of the existence of a personal God... New York. 1908. xiv, 191 p. 12°.

#### Saxony. Königl. sächsische Landes-Wetterwarte.

Wetterbericht. 1908. Dresden. 1908. n. p. 8°.

#### Smithsonian institution.

Annual report. 1908. Washington. 1909. 138 p. 8°.

#### Société astronomique et météorologique de Port-au-Prince.

Bulletin annuel... Année 1908. Port-au-Prince. 1909. 39 p. 8°.

#### Soper, George A.

The air and ventilation of subways. New York. 1908. ix, 244 p. 8°.

#### Southport. Fernley observatory.

Report... 1908. Southport. 1909. 29 p. 8°.

#### Steen, Åksel, S.

Havoverflatens temperatur ved Norges kyst. Kristiania. 1908. 17 p.

8°. (Archiv for matematik og naturvidenskab. B. 29, Nr. 12.)

#### Trieste. I. r. Osservatorio marittimo.

Rapporto annuale 1905. 22 v. Trieste. 1909. 123 p. 8°.

#### Wheeler, Joseph T.

The zonal-belt hypothesis. A new explanation of the cause of the ice ages. Philadelphia. 1908. 401 p. 8°.

**Wilson, G. B.**

Air-conditioning. Being a short treatise on the humidification, ventilation, cooling, and the hygiene of textile factories—especially with relation to those in the United States. New York. 1908. 143 p. 12°.

**Yurieff, [Dorpat]. University. Meteorological observatory.**  
Meteorologische Beobachtungen 1906. Jurjev. 1907. 93 p. 4°.

**RECENT PAPERS BEARING ON METEOROLOGY  
AND SEISMOLOGY.**

C. FITZHUGH TALMAN, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a —

**American geographical society. Bulletin.** New York. v. 41. 1909.

W[ard], R. DeC. An interesting barometer. p. 388. (June.)

Hobbs, William Herbert. The Messina earthquake. p. 409-

422. (July.)

**Astrophysical journal.** Chicago. v. 29. May, 1909.

Abbot, C. G., d' Fowle, F. E., jr. Improvements and new results in solar constant determinations. p. 281-289.

**Engineering news.** New York. v. 61. June 17, 1909.

Flinn, Alfred D. Rainfall and runoff on the Croton drainage area, New York water supply, 1908-9. p. 650.

**Journal of the Franklin institute.** Philadelphia. v. 167. 1909.

Carter, Oscar C. S. Earthquakes in the light of the new seismology. p. 434-472. (June.)

Seely, Leslie B. Some problems of forestry. p. 1-18. (July.)

**Manchester geographical society. Journal.** Manchester. v. 24. 1908.

Ascoli, W. S. Guatemala: travels and experiences. p. 97-126. [Climate, p. 103-104.]

**Nature.** London. v. 50. 1909.

Lockyer, William J. S. Cloud photographs from a balloon. p. 310-311. (May 13.)

— The Italian earthquake of December 28, 1908. p. 415. (June 10.)

**Science.** New York. v. 29. 1909.

Pollock, J. A. The ions of the atmosphere. p. 919-928. (June 11.)

**Science.** New York. v. 30. 1909.

Palmer, Andrew H. A remarkable aurora borealis. p. 57. (July 9.)

**Scientific American.** New York. v. 10. July 17, 1909.

— Wireless telegraphy and meteorology. (Extr. *Cosmos*.) p. 41.

**Scientific American supplement.** New York. v. 47. June 19, 1909.

Wagner, A. The greatest altitudes attained by unmanned sounding balloons. p. 386.

**Scottish geographical magazine.** Edinburgh. v. 25. May, 1909.

Parkin, George R. The railway development of Canada. p. 225-

250. [Climate and the development of Canada, p. 249.]

**South African philosophical society. Transactions.** Cape Town. v. 18. 1909.

Sutton, J. R. Earth temperatures at Kimberley. p. 421-435.

**Symons's meteorological magazine.** London. v. 44. June, 1909.

— Georg von Neumayer. p. 83-86.

**Annuaire météorologique.** Bruxelles. 1909.

— Bibliographie de la climatologie belge. p. 7-9.

— Classification décimale des matières météorologiques. p. 10-19.

— Comparaison d'évaporomètres. p. 20-24.

— Comparaison de pluviomètres. p. 25-30.

**Ciel et terre.** Bruxelles. 30 année. 1909.

R. F. de. Télégraphie sans fil et météorologie. p. 144-146. (16 mai.)

Vincent, J. Georges Neumayer. p. 201-202.

Hellmann, G. L'aurore de la météorologie. p. 203-209. (16 juin.)

L[agrange], E. Phénomènes sismiques dans le midi de la France. p. 221-225. (1 juillet.)

**France. Académie des sciences. Comptes rendus.** Paris. Tome 148. 1909.

Hildebrandsson, H. Hildebrand. Sur la compensation entre les types de saison en certaines régions de la terre. p. 1559-1562. (7 juin.)

Bigourdan, G. Sur quelques tremblements de terre qui ont dévasté la Provence et le Dauphiné. p. 1568-1570. (14 juin.)

Angot, Alfred. Sur le tremblement de terre du 11 juin 1909. (14 juin.)

Bayeux, Raoul. Influence d'un séjour prolongé à une très haute altitude sur la température animale et la viscosité du sang. p. 1691-1694. (21 juin.)

Jullien, —. Note sur l'emplacement des localités qui semblent avoir été le plus souvent éprouvées dans le tremblement de terre du 11 juin 1909. p. 1703-1704. (21 juin.)

**Journal de physique.** Paris. 4 ser. Tome 5. Mai 1909.

Millochau, G. La température du soleil et la constante solaire. p. 347-360.

**Nature.** Paris. 37 année. 1909.

Loisel, J. Les nuages. p. 405-408. (29 mai.)

— Les sondages de l'atmosphère dans l'Est-Africain. p. 14 (suppl.)

— Le tremblement de terre du Midi. p. 17 (suppl.). (19 juin.)

Rudaux, Lucien. Les hautes régions de l'atmosphère. p. 51-54. (26 juin.)

R., L. Les nuages et la distribution des végétaux dans les Pyrénées centrales. p. 29 (suppl.). (26 juin.)

**Société belge d'astronomie. Bulletin.** Bruxelles. 14 année. Jan. 1909.

Durand-Gréville, E. L'albe ou second crépuscule du soir. p. 9-25. (jan.)

Durand-Gréville, E. L'aube et l'albe. Premier crépuscule du matin et second crépuscule du soir. p. 169-173. (avril.)

**Annalen der Hydrographie et maritimen Meteorologie.** 37. Jahrg. Juni 1909.

— Beitrag zur atmosphärischen Refraktion über Wasserflächen. p. 306-324.

**Archiv der deutschen Seewarte.** Hamburg. 31. Jahrg. 1908.

Köppen, W. Drei Jahre gleichzeitiger meteorologischer Drachen-aufstiege bei Hamburg, Berlin und St. Petersburg. p. 3-12.

**Globus.** Berlin. Bd. 95. Juni 1909.

Eckhardt, Wilh. R. Ueber das Klimaproblem der geologischen Vergangenheit und historischen Gegenwart. p. 334-336. (10 Juni.)

— Georges von Neumayer. p. 353-354. (17 Juni.)

**Illustrierte aeronautische Mitteilungen.** Strassburg. 13. Jahrgang. 5. Mai 1909.

Polis, P[eter]. Die Pilotballonstation des meteorologischen observatoriums zu Aachen. p. 365-367.

**Meteorologische Zeitschrift.** Braunschweig. Band 26. Mai 1909.

Trabert, W. Dr. Joseph Maria Fernter. p. 193-198.

Köppen, W. Vorschlag alle Luftdruckmessungen in allgemeinem Kraftmass anzugeben. p. 198-201.

Czermak, P. Zur Wolkenform des aufsteigenden Luftstromes. p. 210-212.

Köppen, W. Dr. Adolf Sprung. Nachruf. p. 215-216.

Ficker, Heinz von. Die Austrocknung Turkestans. p. 216-217.

— Resultate der meteorologischen Beobachtungen zu Loanda. p. 230.

— Resultate der meteorologischen Beobachtungen zu S. Vicente de Cabo Verde. p. 232.

**Meteorologische Zeitschrift.** Braunschweig. Band 26. Juni 1909.

Schmauss, A. Die obere Inversion. p. 241-258.

Kremser, V. Ergebnisse vieljähriger Windregistrierungen in Berlin. p. 259-265.

— Ein meteorologisches Observatorium auf dem Pic von Teneriffa. p. 267.

— L. Teisserenc de Bort: Die Gesetze der vertikalen Temperaturverteilung unter verschiedenen Breiten und bei verschiedenen meteorologischen Verhältnissen. p. 267-270.

Schubert, J. Der Niederschlag in der Annaberger Heide 1901 bis 1905. p. 270-272.

Wegener, Kurt. Bemerkungen zu der Abhandlung "Zur Entstehung der Graupeln" von Dr. E. Barkow. p. 273-275.

Friesenhof, Gregor. Der Einfluss der Schneedecke auf die Bodentemperatur. p. 273-275.

Hann, J[ulius]. Klima am unteren Zambezi. p. 277-280.

— Resultate der meteorologischen Beobachtungen in den Jahren 1904 bis 1906 zu Kayes (Franz. Sudan). p. 275.

Hann, J[ulius]. Resultate der meteorologischen Beobachtungen zu Timbuktu im Jahre 1905. p. 281-282.

**Petermanns Mitteilungen.** Gotha. 55. Band. 1909.

Woeikow, A[lexander]. Der Aralsee und sein Gebiet nach den neuesten Forschungen. p. 82-86.

Fitzner, Rud. Die Regenverhältnisse des Togogebiets. p. 93-94.

Mecking, Ludwig. Zum antarktischen Klima. p. 113-116.

**Physikalische Zeitschrift.** Leipzig. 10. Jahrg. 15. Juni 1909.

Gockel, A. Über den Ursprung der Gewitterelektrizität. p. 396-398.

**Weltall.** Berlin. 9. Jahrgang. 1. Mai 1909.

Breu, Georg. Haben die Oberbayerischen Seen auf die Hagelbildung und Hagelverteilung einen Einfluss? p. 221-229.

**Wetter.** Berlin. 26. Jahrgang. Mai 1909.

Rudel, —. Gewitterhäufigkeit zu Nürnberg 1879 bis 1908. p. 104-107.

**Wiener Luftschiffer-Zeitung.** Wien. 8. Jahrgang. 15. Juni 1909.

Fonvielle, Wilfred de. Meteorologie im Ballon. p. 195-196.

**Nuovo cimento.** Pisa. ser. 5. v. 17. Marzo 1909.

Bellia, C. Il potenziale elettrico dell'atmosfera sull'Etna. p. 174-178.